

Serial No.: 10/550,835
Examiner: S. Cattungal
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Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application.

1-8. (Cancelled)

9. (Currently amended) An ultrasonic probe, comprising: a piezoelectric-an ultrasonic element for transmitting and receiving an ultrasonic signal; a signal line for transmitting an electric signal to or from the piezoelectric-ultrasonic element; and a ground line for supplying a ground potential to the piezoelectric-ultrasonic element, the ultrasonic probe further comprising:

a sensor signal substrate and a sensor ground substrate connected electrically with the piezoelectric-ultrasonic element; and

a cable substrate that electrically connects the sensor signal substrate and the sensor ground substrate with the signal line and the ground line, respectively,

wherein the sensor ground substrate and the cable substrate are connected directly or via a relay ground substrate, and

at least a part of the cable substrate is covered with the sensor ground substrate or the relay ground substrate.

10. (Previously presented) The ultrasonic probe according to claim 9, wherein at least a part of the sensor signal substrate is covered with the sensor ground substrate or the relay ground substrate.

11. (Previously presented) The ultrasonic probe according to claim 9, wherein a connecting portion between the sensor signal substrate and the cable substrate is covered with the sensor ground substrate or the relay ground substrate.

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12. (Previously presented) The ultrasonic probe according to claim 11, wherein the connecting portion between the sensor signal substrate and the cable substrate is covered with the sensor ground substrate or the relay ground substrate entirely.
13. (Currently amended) The ultrasonic probe according to claim 9, wherein at least a part of the piezoelectric-ultrasonic element is covered with the sensor ground substrate or the relay ground substrate.
14. (Currently amended) The ultrasonic probe according to claim 13, wherein an ultrasonic wave transmitting/receiving surface of the piezoelectric-ultrasonic element is covered with the sensor ground substrate or the relay ground substrate.
15. (Currently amended) The ultrasonic probe according to claim 14, wherein the ultrasonic wave transmitting/receiving surface and peripheral surfaces of the piezoelectric-ultrasonic element are covered with the sensor ground substrate or the relay ground substrate.
16. (Currently amended) The ultrasonic probe according to claim 14, wherein a plurality of grooves are formed on a part of the sensor ground substrate or the relay ground substrate that covers the ultrasonic wave transmitting/receiving surface of the piezoelectric-ultrasonic element, the grooves dividing the piezoelectric-ultrasonic element electrically into a plurality of oscillators.
17. (Currently amended) The ultrasonic probe according to claim 14,
wherein the sensor ground substrate is arranged so as to surround a periphery of the piezoelectric-ultrasonic element, the sensor signal substrate, and the cable substrate, and
a portion of the sensor ground substrate that is drawn over a surface of the piezoelectric-ultrasonic element other than a surface connected with the sensor signal substrate is connected with the cable substrate or a part of the sensor ground substrate.